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COMETT Programme

REPORT OF 1987 ACTIVITIES

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I. INTRODUCTION

1. Over the last few years the problem of human resources has been the object of growing attention throughout the Community. Faced with the, not only economic, industrial and technological, but also social stakes, the existence, in sufficient numbers, of a highly qualified personnel has appeared increasingly as a condition necessary for the growth and competitiveness of enterprises in a European context. It is in this context that the Council decided to launch the COMETT programme : a community programme of cooperation between universities and enterprises regarding technological training. The objectives of this programme, as announced in the Decision of the Council¹ are as follows :

- i) to give a European dimension to cooperation between the university and the enterprise in the field of training relating to the innovation, development and application of new technologies ;
- ii) to favour the joint development of training programmes and exchanges of experience, as well as maximum use of resources regarding training at a community level ;
- iii) to improve the offer of training at a local, regional and national level with the competition of interested parties therefore contributing to the balanced economic development of the Community;
- iv) to develop the level of training to meet technological and social changes, by identifying the resulting priorities in the existing set up of training and which require additional action both in the Member States and at a Community level, and by favouring the equality of opportunities between men and women.

2. The COMETT Programme cannot be considered in isolation but in the context and as an extension of a series of Community initiatives which it is important not to forget :

1) - there is, firstly, the programme framework of Community Research and Development recently adopted by the Council², as well as programmes of application (ESPRIT, RACE, BRIT,.....). In this respect, COMETT can be regarded as complementary to this strategic approach recorded in title VI of the Single European Act; at a community level, it in fact concerns strengthening the productive potential of the Community by developing advanced training in the field of technologies and their applications; in particular, this complementarity is indispensable in regard to

- the DELTA programme in the course of being examined by the Council and the European Parliament, which will concentrate on the development of the new technologies, tools and infrastructures necessary for the support of distance learning.

- the Stimulation Plan for Scientific Cooperation and Exchange, notably in regard to the award of research grants and scholarships.

¹. Decision 86/365/EEC of 24 July 1986
(OJ n° L 222 - 8/8/86, p. 17-21)

². Decision 87/517/EEC of 5 October 1987

- ii) - there are, next and secondly, the community actions in the field of education and training, more particularly on 2 points which are directly related to the COMETT Programme :
 - firstly the ERASMUS programme of student mobility in Europe adopted in June 1987 by the Council ³
 - secondly the various community programmes in progress and being developed relating to the technological and social control of technologies in the field of scholastic systems and of continuous professional training - in particular the EUROTECNET programme;
 - iii) - there is finally and thirdly, the strategic Community programme⁴ in favour of small and medium-sized enterprises (SME) for which training, especially in the field of technologies and technological transfer constitutes an essential factor for development.
3. In more general terms, through the underlying transnational dimension of the Programme, COMETT is an important element in the realisation of the Internal Market. In fact, COMETT must contribute, firstly, towards strengthening the competitiveness of enterprises (by the stress placed on human resources) and, secondly, towards the social and economic cohesion of the Member States of the Community (through the development of partnerships and cooperation linking enterprises and universities throughout the Community territory). Insofar as, in compliance with the Decision of the Council, these partnerships are not restricted only to action regarding initial and continuous training directed towards future scientific and technical supervisory staff but are also open to social partners, COMETT is also a further development of the Val Duchesse social dialogue - notably of the joint notice of 6 March 1987, on the training and motivation of workers in the face of the technological changes, adopted by the social partners.
4. This document, in the terms of Article 5 of the above mentioned Decision of the Council, represents the annual report relating to the implementation of the COMETT programme. Together with annexes showing a certain number of data regarding the results obtained since the operational launch of the programme (1st January 1987), this stage report is necessarily of an informative and descriptive nature. This being the case, it cannot represent the report on the acquired experience requested in Article 6 (1st paragraph) of the Decision - which will have to accompany the Commission's proposals relating to the extension of the current Programme after 1989.

³. Decision 87/327/87 of 15 June 1987
(OJ n° L166 - 5/6/87, p. 20-24)

⁴. Resolution of the Council of 3 November (OJ n° C287 p.1)

II. THE STARTING POINT

5. The Decision of the Council 86/365/EEC structures COMETT around the following 4 strands of action :

- i) - Strand A : the progressive setting up of a European Network of University-Enterprise Training Partnerships (UETPs). In other words, the constitution of training consortia which are a set of mechanisms for cooperation between enterprises and higher education. These consortia may have a regional basis; they may also be sectorial in nature in a well defined field of technology and of its applications. Set up in a Member State or, from the outset, with a transnational dimension and structure, these consortia and the network grouping them represent the foundation for regional and/or sectorial concertation between the various interested parties; they also represent an infrastructure on the basis of which training action relating to the other strands can develop;
- ii) - Strand B : the development, throughout the Community, of transnational training courses and fellowships, the mechanism for which is as follows :
 - to enable a student or recent graduate to perform a training course in an enterprise in another Member State;
 - to enable a supervisor, either industrial or in a university, to go to a university or enterprise in another Member State, this not only in order to bring his experience into the training procedure, but also to enrich his professional knowledge;
- iii) - Strands C (continuous training action) and D (support for multilateral training initiatives backed by multi-media systems in the general perspective of the development of open and distance teaching systems with a European dimension). Emphasis for these two strands is placed on the lack of highly qualified personnel. Through partnerships, associating enterprises and universities from at least 2 different Member States, Community support is brought either to the development of training modules, or to intensive training courses - particular stress being placed on the training needs of SME, as well as the training of trainers.

These 4 strands of action are completed by a series of measures aimed at enriching and promoting the development brought to the COMETT programme : action of information and awareness, particularly studies (paragraphs 26 - 29).

6. Regarding the budget itself, the Council, in its above mentioned Decision, had decided that the funding needed for the execution of the Programme for the period covered could be estimated at 45 million ECU subject to (Article 6) a reevaluation of this amount to be decided before 31 December 1988. Because of the virtual totality of the Community fundings, especially in the field of R & D, the budgetary support, in the form of

co-financing, is given as an absolute value (maximum amount) and as a relative value (maximum percentage of funding), depending on the strand of action. Moreover, a breakdown had been decided of the maximum financial commitments of the Community under the various strands, subject

to corrections to be made as the implementation of the COMETT Programme is carried out : 17% (maximum) for strand A, 50% for strand B and 30% for strands C and D.

7. The Commission is responsible for the Programme (Article 5 - 1st point-of the Decision). It is assisted in this task by a Committee made up of two representatives from each Member State, nominated by the Commission on the basis of the designations made by the Member States. This Committee, meeting on the initiative of the Commission which guarantees its Chairmanship and secretary, issues a notice on the general orientations of the programme, the terms and conditions of selection as well as all measures requiring a community contribution above 100 000 ECU. A recourse procedure to the Council is laid down in this statute in certain cases.
8. In the context of the overall amount evaluated by the Council, the Budgetary Authority, in addition to the 1 million ECU reserved for the 1986 preparatory work, had initially allocated 13 million ECU for the first operational year of the Programme (Article B631 of the budget). During 1987, given the success obtained by this Programme and on the proposal of the Commission, the Budgetary Authority allocated an additional funding of 3 million ECU, thus raising the resources available for the implementation of the Programme in 1987 to 16 million ECU.

III. AN INITIAL EVALUATION FOR 1987

A. The strategy followed

9. Following the Decision of the Council the Commission proceeded with the setting up of the COMETT Committee by asking each Member State to designate 2 representatives (together with 2 reserves) with experience both in industrial circles and in higher education. This Committee held its first meeting on the 11 - 12 November 1986. This first meeting notably allowed them to define the strategy to be followed for the first operational year of COMETT and, on this basis, to specify the contents of the Programme and the projects to be selected in the context of the call for tender launched at the end of December 1986 and accompanied, as are Community R & D programmes, by a "Guide for Applicants" setting out the criteria of eligibility and the steps to be followed.
10. For this first COMETT year it was notably agreed :
 - i) - to organise a procedure of 2 successive rounds in 1987 (final date for the introduction of applications : 31 March and 1 July 1987). This actually takes advantage of the impetus generated by the Decision of the Council of July 1986 while allowing potential promoters who are less well advanced in the development of their applications not to be penalised by too tight a schedule; at the same time it was agreed only to commit 50% of the budget resources allocated to the COMETT Programme

for 1987 in the first round (Article B631) i.e. just under 6 million ECU of the 13 million ECU available;

- ii) - to launch COMETT simultaneously in the 4 strands at a time (A, B, C and D) rather than a step which would have consisted of setting up an infrastructure in the form of the UETP network and then, on this basis, launching the other strands at a later date : in fact, it was important, given the experimental and innovative character of COMETT, to establish the credibility of the Programme by facilitating the emergence of projects in all the fields covered by COMETT;
 - iii) - to implement COMETT over the whole range of technologies and their applications - in other terms, not to restrict the Programme to a few technological fields such as information technologies and/or industrial technologies, but to open COMETT up also to advanced training actions in other fields such as the environment, the medical technologies, energy, etc.... including training for industrial and social management of technologies.
11. In order to guarantee a better distribution of the COMETT programme in the Member States and therefore to facilitate the forging of partnerships and a greater interaction with analogue initiatives in the Member States, it was also agreed to set up "COMETT Information Centres". 13 in number (including two for Belgium), designated by the National Authorities and benefiting from their backing, the basic purpose of these Information Centres is to support potential promoters with their advice as well as to facilitate the search for industrial and/or university partners in other Member States.
12. On the basis of what has gone before, the Commission launched its call for tenders of projects on 31/12/1986 (OJ n° C336 p.6) and, in the 9 languages of the Community, issued more than 35 000 copies of the Guide for Applicants 1986/1987. In parallel, an information brochure concisely summarizing the contents of the Programme and the procedure to be followed for applications was made - also in the 9 languages - and issued in nearly 75 000 copies.
13. Finally, in order to guarantee a smooth development in COMETT, to be able to meet the multiple applications and to satisfy the numerous demands in terms of advice and information, the Commission agreed to strengthen the means needed for the implementation of the Programme. In this perspective a convention was passed with the European Centre for Strategic Management (non-profit making organisation) based in Brussels to set up an external technical assistance team to help the relevant Services of the Commission to run the Programme.

B. The first round 1987

14. The files introduced

485 applications were introduced in the first COMETT round a third of which presented one or several projects under a single strand, the other

applications presenting projects on several strands (A and B, A and C, A and D, etc...). The total number of projects introduced in the first round thus amounted to nearly 1100 projects.

The 485 applications covered a very wide range of technological fields : information technology and computer-assisted production, but also energy, optoelectronics, the environment, biotechnology, hygiene and safety as well as industrial and social management of technologies, to mention just a few.

The projects introduced represented an overall cost of over 200 million ECU for the period, 1987 - 1988; the community funding requested for all these projects was of the order of 85 million ECU for the same period.

Given the very limited budget for this first year of activity, especially for the first round, an extremely strict selection procedure was necessary

15. The selection procedure

The selection criteria were already set out in the Guide for Applicants :

- i) - all cooperation in the context of COMETT must imply both universities and enterprises regarding advanced training in the field of technologies;
- ii) - the projects must be run in a transnational community context; however, initiatives under strand A relating to cooperation at a local, regional or national level between universities and enterprises can be selected. These applications must nevertheless contain an active commitment to link up with similar initiatives in other Member States. For all the other strands the transnational nature must exist right from the moment of application;
- iii) - the existence of interaction between the project put forward and a research and development programme (ESPRIT, RACE, BRITE, PRINT....) is desirable;
- iv) - applications relating to the placement of students (strand B1) must very clearly indicate the terms of acknowledgement of these placements in the context of the original training as well as the conditions for supervision of these placements;
- v) - particular attention is given to projects involving small and medium-sized enterprises as well as the training of trainers (for strands C and D);
- vi) - special interest is given to the innovative nature of the training proposed, both as regards the contents of the training and the character of the structure set up and the pedagogical approach used.

16. The selection procedure comprised several stages the most important steps of which were :

- i) - firstly, the evaluation of the files by the Services of the Commission, with the technical support of the External Unit. This procedure enabled all ineligible applications to be removed at an initial phase (non-transnational nature of the project, level of training lower than that decided by the Council, etc....); it also allowed failings in a certain number of the proposed projects to be highlighted and, in more general terms, to prepare the ground for the other stages in the selection procedure.
- ii) - next, the search for an internal coherence with the other community programmes - those relating to the programme framework of Research and Development as well as those directed towards specific sectors, such as the strategic programme in favour of SME for instance. Within the context of an inter-General Direction Group set up for this purpose, it concerned identifying from among the projects put forward, those which, from the point of view of the other community Programmes, presented special interest - in other words, favouring synergies.
- iii) - next, it was necessary to check the chosen approach with independent experts, either from universities or coming from industry. For the evaluation of projects in the first round the Commission called upon a group of 14 experts who met for two days in Brussels.
- iv) - the proposal of a list of projects "for selection" was thus drawn up and submitted to the COMETT Committee (6-7 July 1987). At the end of the process the Commission, on 22 July 1987, decided upon a final list of projects for community support.

17. The final results of this first round were as follows :

- i) - Financial support to the setting up of 70 training consortia was agreed to, i.e. 44 UETPs of a regional type, 16 UETPs of a sectorial nature and 10 consortia showing a mixed character, in other words, proposing activities concentrated in a region but also aimed at a specific technological sector. The financial contribution for strand A, in the first round, amounts to roughly 2.5 million ECU.

Thus, as examples, UETPs with a regional dominance were selected (subject to the later transnational development of their activities) such as ALUEF Liège and SONT (Belgium), COMETT-OUEST (France), HIBERNIA (Ireland), TWENTE Consortium (The Netherlands), TARGET (United Kingdom), SAAR-LOR-LUX (Luxemburg), ITEC Lisboa (Portugal), MARCONI-AUEF (Italy); UETPs with a sectorial dominance were also selected such as : Arbeitsgruppe für Integrierte Schaltungen (Germany) in the field

of micro-electronics, Association Espanola de Robotica (Spain) in the field of robotics, DEUS (Denmark) in the fields of industrial and information technologies and the UETP of the Banque Agricole (Greece) in the field of agro-foodproducts.

- ii) - Community support was given to the realisation of 217 transnational student training courses and 15 secondments for fellowship grant receivers, 13 of which were university related and 2 enterprise related. The financial funding of the Community amounts to over 630 000 ECUS for the student training courses and nearly 120 000 ECUS for the fellowships.
- iii) - 45 continuous training projects were selected representing an overall Community contribution of 1.38 million ECU. The projects selected were directed particularly towards industrial and information technologies, but a wide range of other fields were also covered.

We can, as an example, mention projects such as : "CERISE", submitted by RTL Luxemburg in cooperation with France in the field of training in image synthesis,

- "Systemes de moyens interactifs pour la formation" from the National University for Distance Teaching (Spain) in association with partners from the United Kingdom, Portugal and The Netherlands.
 - the project submitted by the Jutland Technological Institute in Aarhus (Denmark) in collaboration with the United Kingdom and Italy relating to technological innovation in SMEs, as well as the project presented by EOMMEX (Greece) for advanced training in the field of wood technology in collaboration with Italy.
- iv) - Under strand D (support for multimedia training systems), 24 initiatives could be selected. They were projects using, for the needs of training, various technologies, such as satellite communication, the use of interactive videodisks, computer-assisted training, etc....

The overall Community contribution for this strand rose to about 1 million ECU.

Here too, as an example, we can, among the projects selected, mention projects such as :

- PACE (also accepted under strand C) which associates leading European enterprises and universities with a view to setting up an advanced distance training structure for engineers similar to the National Technological University in the United States.
- The VILLAGIO TECNOLOGICO DI TRIESTE project (Italy) in collaboration with France which should lead to a similar training structure in the field of Computer-assisted Production.

- The SATURN project which associates a group of enterprises and universities from several Member States relating to advanced specialized technological training.

18. The considerable number of high quality projects compared to the very restricted amount of available funds led the Commission to set up a reserve list. These are projects which were re-examined in the context of the 2nd round, concurrently with those received for the 2nd round.

The number of reserve projects was 21 for strand A, 6 for strand B1 (student training), 4 for strand B2 (fellowships), 8 for strand C and 7 for strand D.

C. THE SECOND ROUND

19. The files introduced

The interest aroused by COMETT was confirmed by the high number of applications in the second round. Actually, 550 new applications were made, 180 of which covered several strands. In all, over 1400 individual projects were thus presented in the 2nd round. Applications in the second round were much more evenly spread throughout the 12 Member States. Participation by enterprises grew in the second round : nearly one fifth of the projects were put forward by enterprises and almost 40% by professional organisations which enterprises are directly linked with.

20. In the second round 19 applications were presented by transnational groupings of Union Confederations associated with universities, i.e. more than 50 projects in total. These were, in the majority of cases, continuous advanced training projects (under strand C), aimed at strengthening the skills of union managers and engineers in the industrial and social management of technologies in enterprises. The clear interest shown in COMETT by the Union Confederations bears positive witness for the Programme which has placed itself in the heart of the social dialogue of Val Duchesse and the joint notice adopted on 6 March 1987 by the social partners on the training and motivation of workers faced with technological changes.

21. The amount available for the funding of projects submitted in the second round as well as for those high quality projects not selected in the first round was in the order of 8.4 million ECU. (As previously pointed out, an additional transfer of 3 million ECU for 1987 had been granted by the Budgetary Authority).

22. The selection procedure

Along major lines, the same selection procedure was applied as in the first round. The number of independent experts was raised to 18. The COMETT Committee met on 11 - 12 November 1987 in order to examine the applications. The Commission took its decision on 9 December 1987. The quality of the files introduced in the second round was at least equal to those in the first round, with the exception of strand B where the new applications were considerably improved and put forward more complete proposals with regard to the criteria retained.

23. The final results of this second round - bearing in mind some additional support given to the projects selected in the previous round - are as follows :

- i) - 38 new UETPs were added to the Network set up after the first round. In this round 16 UETPs of a regional type, 18 sectorial UETPs and 4 mixed UETPs were selected.

The CATALUNA Y BALEARES UETP (Spain), URSANET (Greece), ENERGAMED (Italy) are a few examples of UETPs selected in the second round.

- ii) - For strand B, a considerable improvement could be noticed regarding the quality of the applications which allowed a significant rebalancing of the whole structure to be carried out on the different COMETT strands in the spirit of the Decision of the Council. Thus, 205 projects were accepted under strand B1 bringing support up to 850 transnational student training courses, and 58 training fellowships were granted to industrial and university supervisors. It should nevertheless be pointed out that although, in the strands in general, cooperation can be seen from all the Member States, there is however, under strand B, a certain imbalance between Member States regarding the flow of students.
- iii) - 90 projects were selected for strand C and 38 projects for strand D. The interest shown by enterprises towards COMETT was confirmed by the large number of applications submitted by enterprises or professional groupings and selected in the second round.

We can, as an example, mention projects such as :

- INTOSPACE, submitted by a German promoter, bringing together industrial partners and universities from 7 Community countries, in the field of microgravity training,
- The "Didactic software based on artificial intelligence" project was submitted by KU Leuven (Belgium) in collaboration with the United Kingdom, Germany, Greece and Denmark
- The microelectronics training proposed by the Fundacio Empresa I Ciencia (Spain) in association with Belgian and French partners.

Under strand D, we can mention :

- the training project in the field of endoscopy introduced by the Association Informatique et Communication (France) in collaboration with 4 other Community countries,
- the project aimed at contributing towards the training of trainers, presented by the University of Erlangen (Germany) bringing together enterprises and universities in Belgium, The Netherlands, the United Kingdom and France

- iv) - The budget reserved for the second COMETT round can be broken down in the following manner between the different strands :

.strand A	: approx. 1 million ECU
.strand B	
student training	: approx. 2.2 million ECU
fellowships	: approx. 400 000 ECU
.strand C	: approx. 3.1 million ECU
.strand D	: approx. 1.6 million ECU

D. Overall results for 1987

24. The COMETT programme has experienced great success during its first year of activities.

A few figures will allow the favourable welcome received by COMETT to be illustrated more clearly :

- i) - 1035 COMETT applications were made in 1987, representing roughly 2600 individual projects.
- ii) - over 1500 enterprises, 900 universities and 750 other professional organisations, both public and private, expressed their interest in COMETT in one way or another (chief promoter or associated partner).
- iii) - The overall amount requested from the Commission to fund the projects presented in 1987-88 was in the order of 200 million ECU.
- iv) - A total number of 618 projects could be selected at the outcome of the two 1987 COMETT rounds. The breakdown of the different strands is as follows :
- . a network of 108 UETPs was set up, including
 - 60 UETPs of a regional type,
 - 34 sectorial UETPs,
 - 14 mixed consortia,
 - 47 of these UETPs already having a transnational character right from the beginning;
 - . 1067 transnational student training courses in enterprises;
 - . 73 transnational fellowships, including 39 for industrial supervisors and 34 for university supervisors;
 - . 135 continuous joint training projects in an extremely diverse range of technological fields between universities and enterprises;
 - . 62 multilateral initiatives for the development of multimedia training systems.

An analysis of the regional distribution within each Member State of the finance granted by the Community within the two 1987 rounds of COMETT is a valuable indicator, given the need to ensure balanced development within COMETT. There can already be seen a positive correlation between the participation rates of the regions in COMETT projects and the existing imbalances within each Member State with regard to the location of higher education institutions as well as of the industrial R & D implantations frequently associated with COMETT projects.

25. The overall budget for 1987 has been broken down as follows between the different strands :

- . approx. 3.5 million ECU i.e. 25% for activities under strand A;
- . approx. 2.9 million ECU i.e. 20% for student training;
- . approx. 500 000 ECU i.e. 4% for fellowships;
- . approx. 4.5 million ECU i.e. 32% for projects selected under strand C;
- . approx. 2.7 million ECU i.e. 19% for strand D;
- . the remainder of the budget was reserved for complementary action planned in strand E (see hereafter paragraphs 26-29) and costs incurred for the running of the programm.

More detailed information concerning 1987 activities as a whole can be found in the annexes to this report.

E. Programme action and support

26. The setting up of COMETT, together with the call for tenders and the distribution of the Guide for Applicants, was accompanied by a certain number of information and advisory activities with the interested parties. Thus, the Services of the Commission, together with the Information Centres and, where necessary, giving them logistic and financial support, were able to organize information days in several Member States : Greece, France, Spain, Ireland, The Netherlands, Germany, Belgium... Other activities are planned for the coming months (United Kingdom, Portugal, etc...).

27. Further downstream - that is on the basis of the selected projects - the Commission has given its backing to a series of activities aimed at reuniting various COMETT projects around a single theme in order to strengthen the synergy between them and in more general terms the interactions between the strands. To support the setting up of the Programme, the Commission organized, in March 1987, an informal meeting of the COMETT Committee at the KU Leuven (Belgium). In the same spirit, the Commission took the initiative to bring together representatives of all the UETPs selected after the first round in Brussels on 15-16 October 1987 (a similar meeting for all UETPs selected in 1987 will be held in spring 1988). The aim of this meeting, in which the Information Centres also took part, was to forge the bases for an initial collaboration between the UETPs from which new projects under other strands (B, C and D) could be conceived in 1988 and put forward to the Commission in the context of the 1987/1988 call for tender which has just been launched.

28. These mutual action and information activities will be strengthened on the basis of the preparatory work undertaken in 1987 on the following aspects :

- i) - the setting up of a data bank of accepted projects : information such as a brief description of the project, the contact people, the fields of activity will be created on the Echo service, located in Luxemburg, and will be publically available.
- ii) - the creation of an electronic messenger service between the UETPs (and the Information centres) : the use of a system such as EUROKOM is planned. It is planned to allocate each selected UETP and each Information Centre an electronic letter box and to set up services open to groupings of users with a common interest either in a Programme strand or in a particular sector.
- iii) - the issue of a COMETT information bulletin : this bulletin will be aimed at the UETP Network, the other COMETT projects, Information Centres and at members of the COMETT Committee. It will contain information and news from the Commission and the Member States, advertisements (conferences, meetings, studies, etc...), profiles of COMETT projects, contact addresses, etc... The first edition is planned for February 1988 and 3 editions are planned per year.

29. In parallel with the launch of the Programme itself, the Commission, in 1987, carried out several studies dealing with important themes for the success of the programme.

- i) - The first study identified a whole series of obstacles, of a legal, administrative or regulatory nature, to cooperation between educational institutions and enterprises in the field of technological training.

This comparative study examines the situation in some of the Member States (France, Belgium, Spain and partly, the Federal Republic of Germany and the United Kingdom). The analysis performed and the enquiry carried out allowed certain foreseeable actions to emerge which the Commission could undertake, at a level of the structure of higher education, but especially regarding a rapprochement of the teaching programmes with regard to the value given and the general practical recognition of training courses in enterprises.

- ii) - A second study examines the training courses in enterprises followed by students in higher education in France, Germany and in the United Kingdom. The problem of the courses is analysed from a qualitative and quantitative point of view, taking as a reference the insertion into scholastic life (duration and time), the organisation (recruitment and selection of trainees, payment, supervision and validation), the participating organisations (teaching institutions and enterprises). Furthermore some representative cases of the running of the training courses are dealt with.

- iii) - A third study relating to the training needs of staff in the sector of higher education involved in cooperation with industry.

This study analyses both the current and desirable qualifications of this staff, commonly called "Industrial Liaison Officer", the existing structures and the methods and equipment required for their training.

This in-depth analysis is being carried out for France, the United Kingdom, Belgium and Ireland. A less detailed analysis of the other countries of the Community has allowed comparative elements to be gathered for all the Member states. This study should lead to the development and the experimental setting up of training activities for these staff.

- iv) - A study is being carried out regarding the linguistic and socio-cultural qualifications of future COMETT and ERASMUS fellowship recipients. The study is being applied in the 12 Member States. It deals not only with the linguistic preparation and the socio-cultural development of the students in their country of origin, but also on the training possibilities in the host country. In each country, this study seeks to find out to what extent the eight other Community languages are represented in the university and what facilities are offered to foreign students to reach an acceptable level in the language of the country.

F. Evaluation of COMETT

30. In the terms of the decision of the council (Art. 6), the Commission must present a report on the experience acquired in the setting up of the Programme. This exercise which is vital to the development itself of the programme, comprises two distinct elements :

- i) - an analysis of the relevance of the programme in relation to the objectives stated :

It is envisaged to begin this exercise in 1988 and to confer the work to a small group of experts representing the world of the university and industry. The Members of the COMETT Committee and the Information Centres set up in the Member States will be called upon to make an active contribution to the collection and interpretation of the available data on COMETT in their country.

Furthermore, the IRDAC (Industrial Research and Development Advisory Committee), regularly informed on COMETT activities, has shown a certain interest in this Programme. This interest became tangible in the organization of a Round table, on 7-8 September 1987 on the role and participation of industry in COMETT. An important conclusion of this gathering was the idea to set up a Specialized Working Group for COMETT, similar to existing IRDAC Working Groups in other fields such as mecatronics and new materials. The IRDAC Committee gave its agreement to the setting up of such a Working Group. The task of this group is to examine the progress of the COMETT Programme,

to give its opinion regarding the participation of industry in COMETT and to advise the Commission on possibilities of increasing the interest of industry. The conclusions of IRDAC's Working Group n°7 will at the same time allow extremely useful information to be gathered for evaluating the Programme and preparing proposals relating COMETT II.

ii) - verification of the relevance of the projects.

The conventions passed with the promoters state that they undertake to present a report to the Commission. This document must reflect the state of progress of the projects and include the results obtained. Regular verification, which may take place on site, is not feasible for all the projects selected in 1987. However, a limited number of projects will henceforth be subject to a more detailed analysis.

IV. FUTURE PERSPECTIVES

31. In the extension of the projects set up in 1987, a call for tender will be launched by the Commission in the beginning of 1988. The closing date for the submission of projects has been fixed for 31 March 1988 and, following the same procedure as that applied in 1987, the Commission will make its decision on the new selected projects before next summer. In parallel, the Commission, together with the chief promoters for the projects selected in 1987, will define the conditions for possible renewal of the Community support accorded in 1987. This renewal, which does not involve projects under strand A and most of the projects under strands C and D, will of course operate, on the one hand, from the resources allocated in the COMETT programme by the Budgetary Authorities in 1988 and on the other hand from the results obtained during the first phase of the work.
32. After consultation on the strategy to be followed in 1988, and notably on the changes to be made to the orientations contained in the "Guide for Applicants", the COMETT Committee has considered it correct to respect the approach followed in 1987 - particularly regarding the priorities in the technological fields. A special effort will be made in the field of transnational student training courses with a view to meeting even more closely the indications contained in the Annex to the 1986 Decision of the Council. In order to reduce the difficulties faced, by the promoters in the setting up of projects under strand B, the Services of the Commission are currently studying the possibility of offering to the UETPs selected in 1987 a "reserve" of training courses, a more flexible procedure than that retained in 1987. In the same spirit, the Services of the Commission are currently studying possible bridges which can be established between COMETT (strand B) and the ERASMUS programme.
33. The Commission has also taken note of the opinion expressed by the COMETT Committee in July 1987 relating to the resources needed for 1988. Actually, insofar as a certain number of projects selected in 1987 are going to be continued in 1988-89 and consequently are going to benefit from community funding, the margin for manoeuvre for the new projects may be reduced. The COMETT Committee, so as not to shatter the dynamic created in 1987, wished part of the credit planned for 1989 to be

brought forward to 1988. The Commission, once the 1988 budget is adopted, will examine the possibilities in this direction and, when the moment comes, will make known its proposals on the subject.

34. In compliance with the same Article 6 of the 1986 Decision of the Council relating to the setting up of the COMETT Programme, the Commission intends to present its proposals for the second phase of the programme beyond 1989 (COMETT II). The success encountered in 1987 as well as the need to guarantee a transition between COMETT I and II will lead the Commission to propose a speeding up of the timetable : the Commission intends to transmit its proposals for COMETT II before the summer of 1988. At the same time, the Commission intends immediately to examine, as indicated in the Decision of the council, the ways and means of reevaluating the overall funding felt to be necessary in 1986.

V. CONCLUSIONS

35. The first year of COMETT activities has led to numerous training initiatives of a very high quality being created. This remarkable success reflects the training needs at a high level in the field of technology both in the world of universities and in enterprises. This success also reflects the prevailing concern within the Member States to develop human resources. The very limited budget allocated to COMETT activities has of course not allowed the funding of all the promoters of good projects after considerable preparatory work which preceded the submission of their file and, in many cases, funding was not able to meet the requirements of the applications presented to the Commission. Moreover, the undissociated nature of the COMETT funding has also been felt as a brake on COMETT activities insofar as frequently the Commission has only been able to commit itself in the first phase of the selected projects. In fact, the budgetary regulations are such that the availability and use of community contributions are very often out of step in relation to steps in realising the projects, by also introducing an element of uncertainty as to their continuation.
 36. Nevertheless : the Programme is launched and has encountered a considerable echo in all the Member States that consolidation is important while developing and increasing Community action, notably where initiatives deserve to be supported. As indicated at the beginning of this report, COMETT must not be regarded as an isolated programme. First it is a series of joint initiatives in the field of the training and teaching of new technologies : the introduction of new technologies into scholastic systems, EUROTECNET and COMETT. It is also training as a social and economic investment in the context of the realisation of the Internal Market; besides, concrete proposals for community action will be drawn up in the near future in the field of continuous training.
- Finally, it concerns the Europe of Citizens for which ERASMUS, COMETT and soon the YES programme have outlined the realisation in a field as vital for the Community as education and training.

A N N E X E S

1987 : First and Second Rounds

NUMERICAL LIST OF SELECTED PROJECTS CLASSIFIED PER FIELD

Field	Strand A	Strand B1	Strand B2	Strand C	Strand D	Total
100	42	36	9	18	4	109
101	-	-	-	2	-	2
102	2	4	2	3	-	11
103	3	1	-	8	3	15
104	1	1	1	1	-	4
105	2	1	1	6	1	11
106	3	8	4	9	-	24
107	23	20	15	27	14	99
108	8	16	5	15	-	44
109	-	3	-	4	-	7
110	3	5	1	4	1	14
111	2	6	1	3	-	12
112	1	5	1	1	-	8
113	4	10	8	8	2	32
114	1	3	2	4	-	10
115	2	1	1	1	-	5
116	6	5	3	9	-	23
Σ 100	103	125	54	123	25	430
200	47	44	6	18	9	124
201	9	43	13	14	18	97
202	12	17	5	9	5	48
203	7	15	6	5	4	37
204	7	24	7	15	18	75
205	16	39	11	24	14	104
206	5	21	4	10	5	45
207	10	28	5	20	12	71
208	-	-	1	-	-	1
209	2	4	4	5	1	16
Σ 200	115	235	62	120	86	618
300	37	21	8	13	3	82
400	18	17	8	11	3	57
500	11	8	2	12	3	36
600	12	19	10	15	3	59
700	17	16	6	9	5	53
701	2	17	2	3	1	25
702	1	-	2	1	-	4
703	5	4	4	3	-	16
704	2	11	2	4	1	20
705	11	3	4	9	5	32
706	3	2	2	1	-	8
707	1	11	4	3	-	19
708	3	9	3	6	3	24
Σ 700	45	73	29	39	15	201
800	33	69	13	20	14	149
900	10	15	11	18	5	59
9999	23	42	20	27	17	129

SECTOR CODES

- 0100 Industrial technologies
0101 Nuclear Measurement and Reference Materials
0102 High Temperature Materials
Basic Technological Research
0103 - Reliability, Wear and Deterioration
0104 - Laser Technology and New Methods of Metal Shaping and Forming
0105 - Joining Techniques
0106 - New testing Methods, including non-destructive testing, on-line testing, and computer aided testing
0107 - CAD/CAM and mathematical models
0108 - New Materials
0109 - Membrane science and technology and problems in electrochemistry
0110 - Catalysis and particle technology
0111 - Automated handling of flexible materials and articles made from them
0112 - Automated joining of flexible materials and their assembly into finished products
0113 - Integration of above two technologies with others leading to flexible sequential automated manufacture
0114 Steel research
0115 Textile
0116 Foodstuffs
- 0200 Information Technologies
0201 Data Processing
0202 Microelectronics
0203 Advanced microelectronics capability
0204 Software Technologies
0205 Advanced Information processing
0206 Office systems
0207 Computer integrated manufacture
0208 EUROTRA
0209 RACE
- 0300 Biotechnologies
- 0400 Energy
- 0500 Health and Safety
- 0600 Environment
- 0700 Improving Efficacy of S/T Potential
All fields covered by the exact and natural sciences, with obvious attention to the following fields :

0701 Chemistry, particularly synthetic chemistry, composite materials
and monomer chemistry
0702 "Biocommunication"
0703 Earth sciences : all aspects relating to structures and materials
0704 Optics : particularly integrated optics
0705 Mathematics and data processing
0706 Oceanography : marine sciences
0707 Surface chemistry and physics : principally catalysis,
intersurface exchanges, polymer metals-adhesion
0708 Scientific instrumentation

0800 Technologies Management

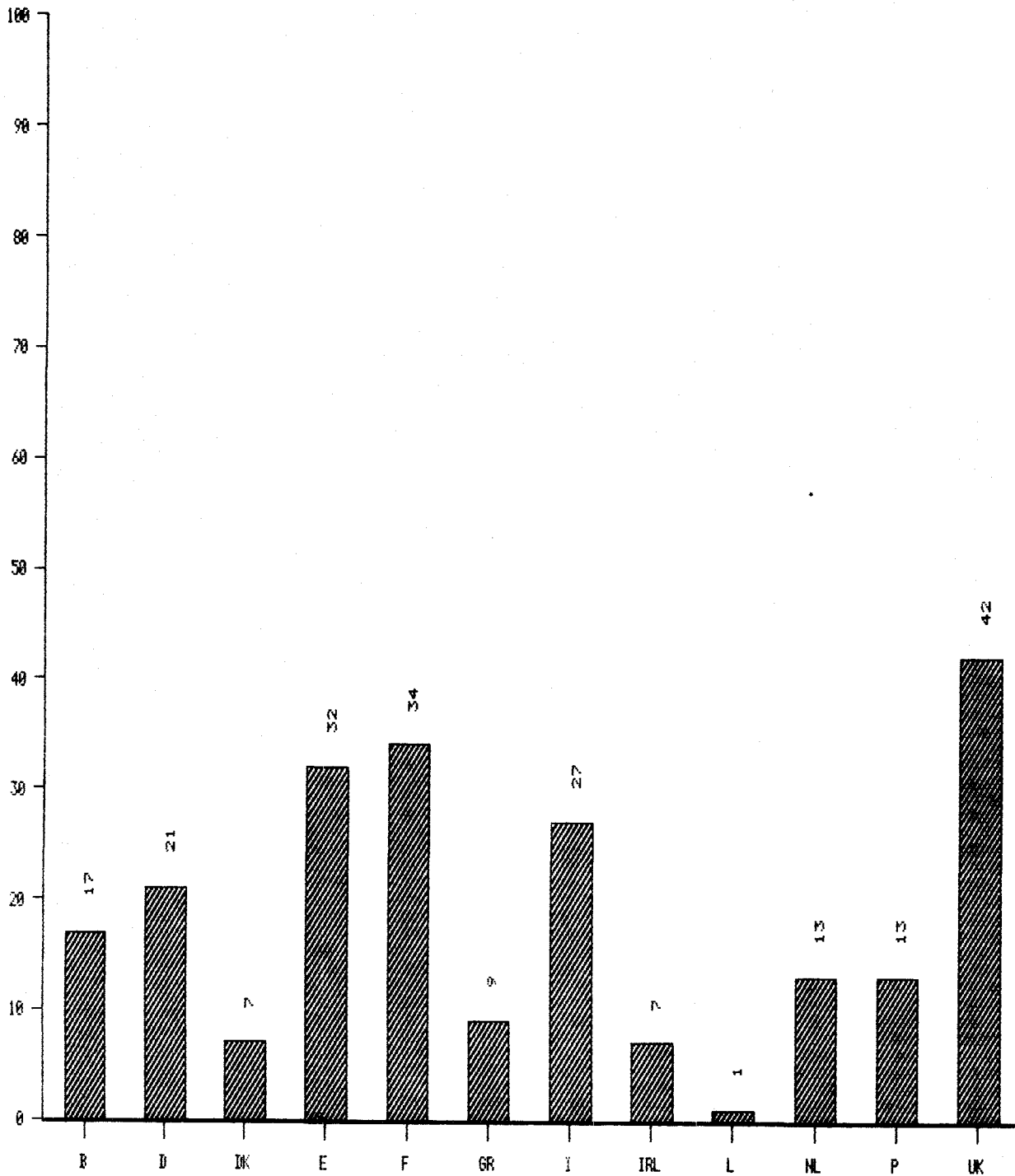
0900 Social Aspects

9999 Others

ANNEX 2

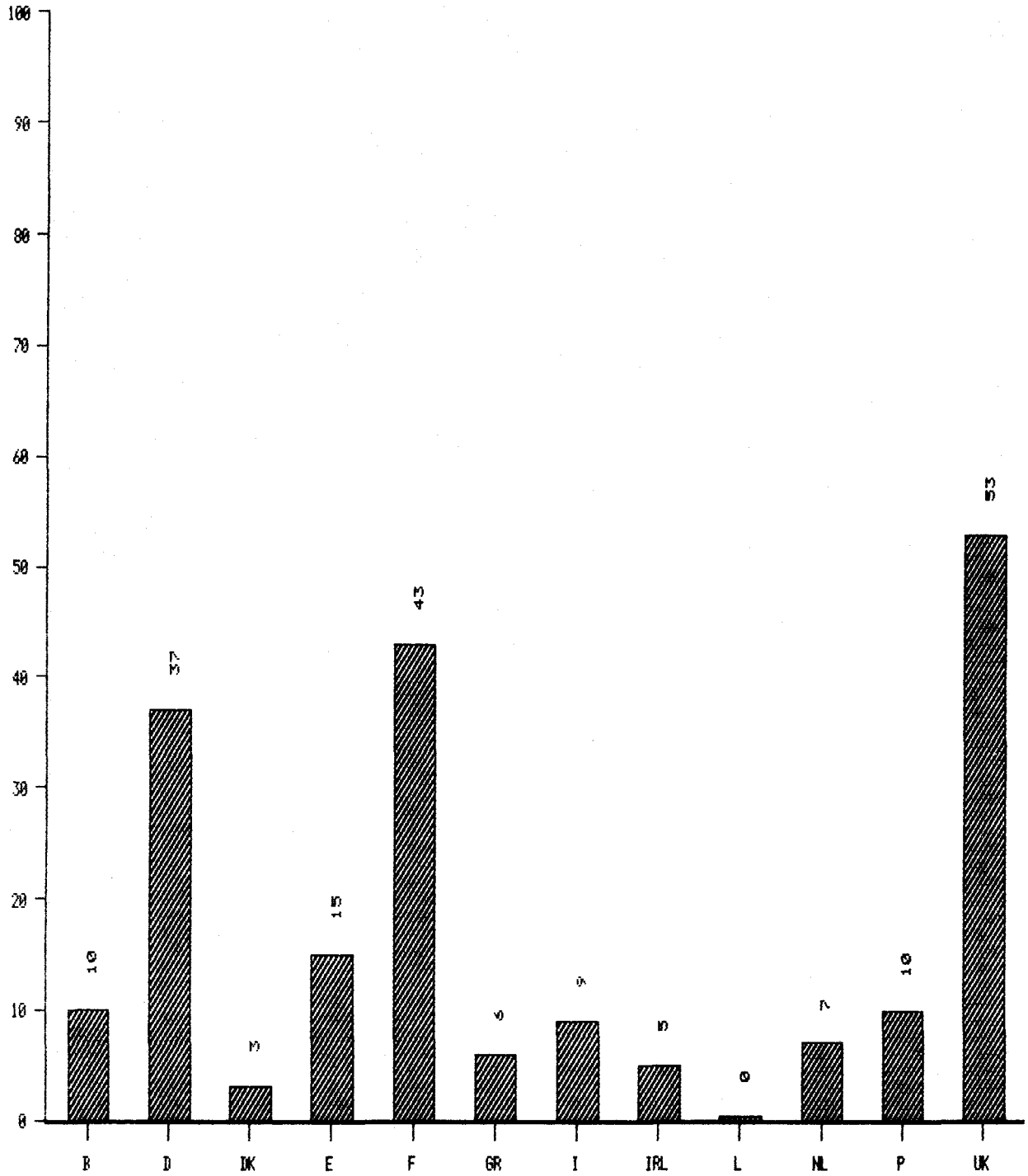
PARTICIPATION BY MEMBER STATE (ACCEPTED PROJECTS)

BOTH ROUNDS 1987 : STRAND A (%)



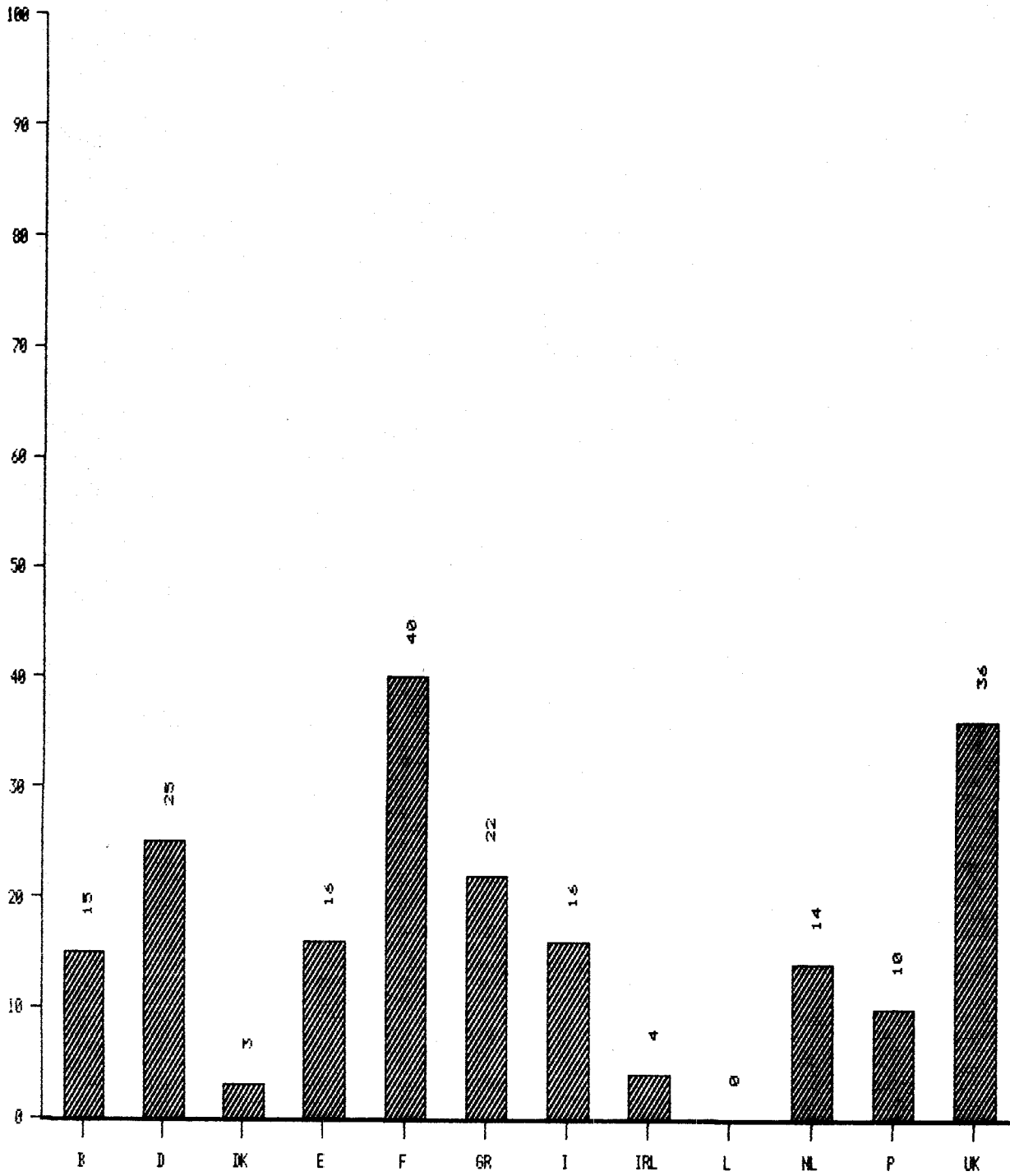
PARTICIPATION BY MEMBER STATE (ACCEPTED PROJECTS)

BOTH ROUNDS 1987 : STRAND BI (%)



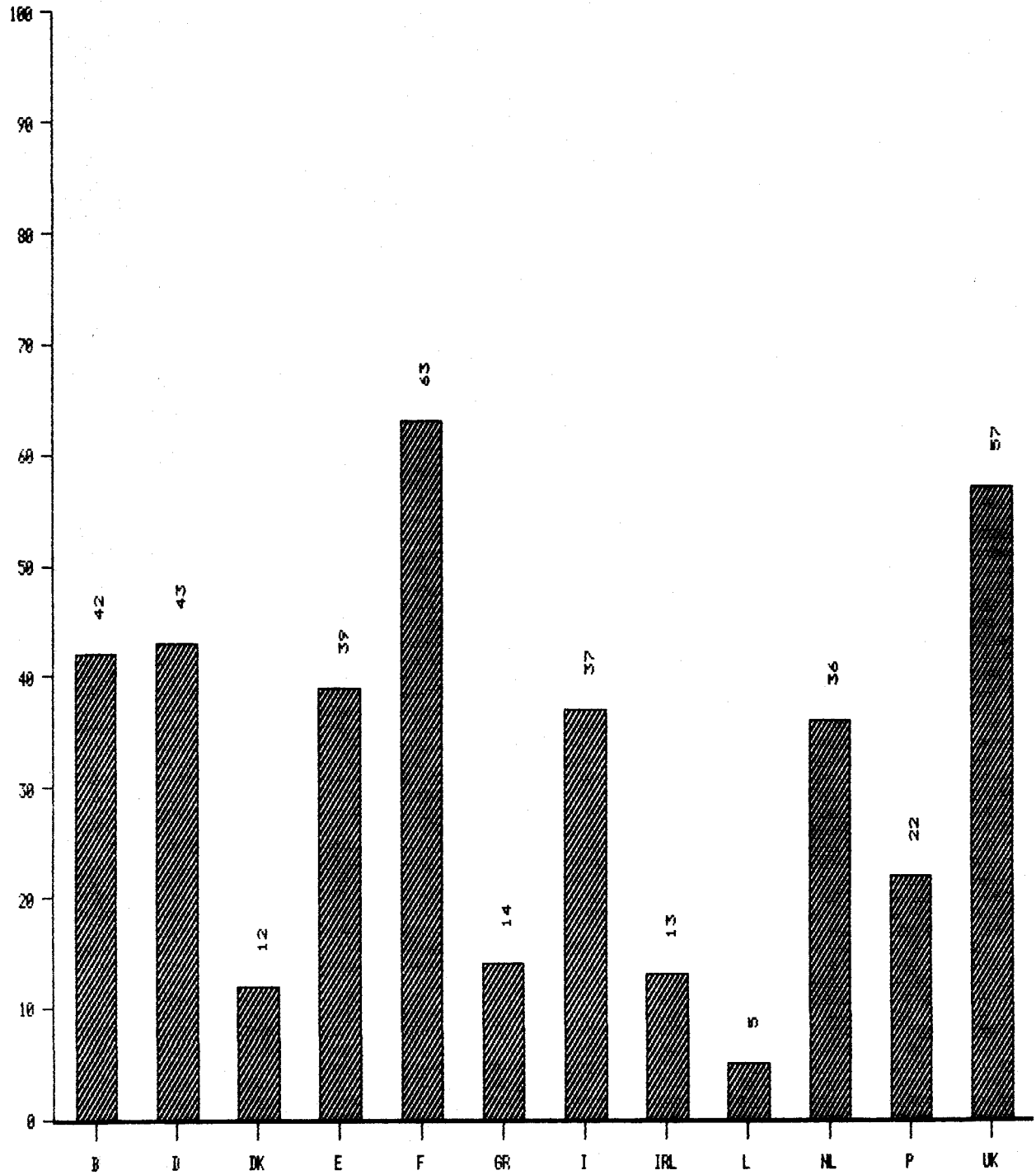
PARTICIPATION BY MEMBER STATE (ACCEPTED PROJECTS)

BOTH ROUNDS 1987 : STRAND B2 (%)



PARTICIPATION BY MEMBER STATE (ACCEPTED PROJECTS)

BOTH ROUNDS 1987 : STRAND C (%)



PARTICIPATION BY MEMBER STATE (ACCEPTED PROJECTS)

BOTH ROUNDS 1987 : STRAND D (2)

